

## PRISAS

# Powder River Information Science Access Site

## About PRISAS

The general objectives of PRISAS are to build a web-enabled, spatially referenced, decision support and information dissemination system encompassing the Powder River Basin to support the needs of state and federal resource managers, private industry, and the public in general.

## What is the Powder River Basin?

The Powder River Basin is the northwest/southeast trending, asymmetrical structural basin in Wyoming and Montana defined at the Tertiary-Cretaceous contact. The Powder River Basin (PRB) and Tongue River Basin (TRB) in Wyoming and Montana are the fastest-growing coalbed methane (CBM) plays in the US. The gas industry anticipates that up to 70,000 wells may ultimately be drilled in the PRB play. Local, county, state and federal agencies and industry require scientific information to help them estimate the CBM resource as well as to manage the impacts to the land surface, agriculture, water quality, water quantity, flora and fauna.

## Coal Bed Methane Impact

The American West historically has been exposed to the Resource Extraction Model of landscape change, and CBM production is just the latest example. The expansion of CBM energy development will lead to an increased population base, which shall put additional stresses on cultural resource such as parks, forest, and wilderness areas that are within commuting distances from CBM production fields and "boom" towns.

During the next ten years, thousands of CBM wells in Montana and Wyoming may withdraw millions of gallons of water from target coals and discharge it to infil-

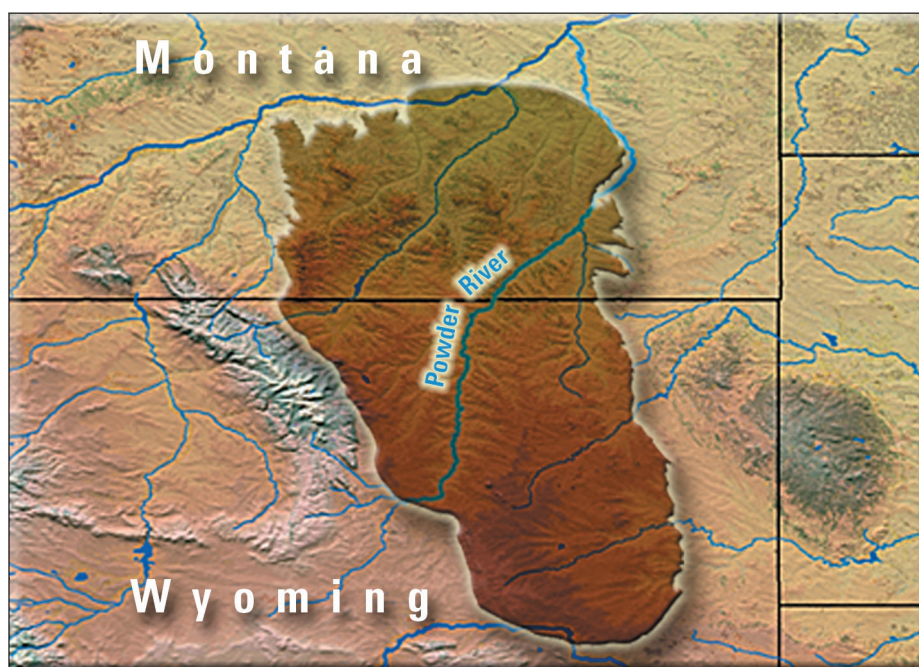
tration ponds, streams, or be re-injected into subsurface aquifers. The impacts of this additional water discharge from CBM development are unknown. Artificial control of discharged water and the supporting infrastructure to develop CBM resources are human-induced land transformations that shall alter the land surface patterns evolving on the PRB landscape.

What areas on the landscape are the most vulnerable to potential impacts from CBM development? How will the surface soils react with the chemical makeup of the discharged water? Will the discharged water be usable for agriculture irrigation and livestock? What is the proximity of existing and potential oil and gas leases to active agricultural land? What are the habitat fragmentation risks of CBM development? And, who will provide the science to build adaptive management and beneficial use plans over CBM-developed regions?

## For More Information

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The Powder River Basin is one of two fastest-growing coalbed methane (CBM) plays in the U.S.

